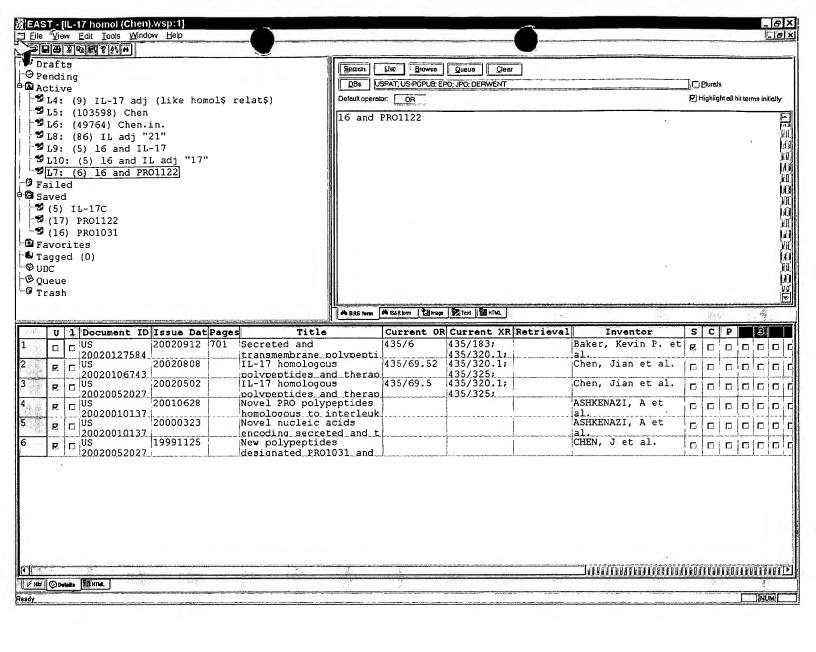
=> d his

(FILE 'HOME' ENTERED AT 20:39:00 ON 16 SEP 2002)

| FILE | 'MEDL | INE, BIOSIS' ENTERED AT 20:41:49 ON 16 SEP 2002 |
|------|-------|---|
| L1 | 5 | S IL-17C |
| L2 | 3 | DUP REM L1 (2 DUPLICATES REMOVED) |
| L3 | 0 | S PRO1122 |
| L4 | 16449 | S (CHEN, J?)/AU |
| L5 | 2 | S L1 AND L4 |
| L6 | 1 | S L2 AND L4 |
| L7 | 0 | S IL-171 |
| L8 | 46 | S IL-21 |
| L9 | 38 | DUP REM L8 (8 DUPLICATES REMOVED) |
| L10 | 0 | S L9 AND IL-17 |
| L11 | 18 | S L9 AND PY<2000 |
| L12 | 0 | S PRO1031 |

| | | | | the state of the s |
|-----|-------|---|----|--|
| 2.0 | sier. | - | 4 | |
| | | | | |
| | | | .4 | • |
| • | | | | |
| | | | | |
| | | | | ¥ |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | V. |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | • |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



| • | | |
|---|------|-----|
| | | • |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | 191 |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | · |
| | ¥1 | |
| | | |
| | | |
| | | |
| | × ** | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Н

```
1: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1980.DAT:*
2: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1980.DAT:*
3: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1981.DAT:*
3: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1981.DAT:*
4: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1983.DAT:*
5: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1984.DAT:*
6: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1989.DAT:*
7: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1989.DAT:*
8: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1989.DAT:*
10: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1989.DAT:*
11: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1989.DAT:*
12: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1991.DAT:*
13: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1992.DAT:*
14: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1992.DAT:*
15: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1992.DAT:*
16: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1995.DAT:*
17: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1995.DAT:*
18: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1995.DAT:*
18: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1998.DAT:*
18: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1998.DAT:*
18: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1998.DAT:*
20: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1999.DAT:*
20: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1999.DAT:*
20: /SIDSI/gcgdata/hold-geneseq/geneseqp-embl/AA1999.DAT:*
                                                                                                                                                                                                           ; Search time 30.37 Seconds (without alignments) 720.498 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA2000.DAT:
/SIDS1/gcgdata/hold-geneseq/geneseqp-emb1/AA2001.DAT:
                                                                                                                                                                                                                                                                                                                                                                                                1073
1 MTLLPGLLFLTWLHTCLAHH......FHTEFIHVPVGCTCVLPRSV 197
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    747574 seqs, 111073796 residues
                                                                                                                                                                                                               September 16, 2002, 15:41:36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Maximum Match 100%
Listing first 45 summaries
                                                                                                                                           OM protein – protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A_Geneseq_032802:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Post-processing: Minimum Match 0%
                                                                                                                                                                                                                                                                                                                                                               US-09-854-208-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   112
114
116
117
119
119
                                                                                                                                                                                                                                                                                                                                                                                                Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Searched:
                                                                                                                                                                                                               Run on:
```

| | | Description | | A HOVEL POLYPEPLIA | A human interleuki | A human interleuki | Human interleukin- | Human Interleukin | . Amino acid sequenc | Human interleukin | Human PRO polypept | Human Interleukin | Human Interleukin | Human Interleukin | |
|-----------|---|--------------------------|------|--------------------|--------------------|--------------------|--------------------|-------------------|----------------------|-------------------|--------------------|-------------------|-------------------|-------------------|--|
| SUMMARIES | | ID | | TTKOTGWY | AAB07602 | AAB07684 | AAY92238 | AAY44460 | AAY53892 | AAG66121 | AAU29247 | AAU04951 | AAY44485 | AAY44462 | |
| | | DB | 1 | 7 | 21 | 21 | 21 | 21 | 21 | 22 | 22 | 22 | 21 | 21 | |
| | | Query Match Length DB | 107 | 121 | 197 | 197 | 197 | 197 | 197 | 197 | 197 | 197 | 206 | 425 | |
| | æ | Query Match | 0001 | 7.00 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | |
| | | Score | 1073 | T 0 / 2 | 1073 | 1073 | 1073 | 1073 | 1073 | 1073 | 1073 | 1073 | 1073 | 1073 | |
| | | Result No. | - | 7 | 7 | m | 4 | Ŋ | 9 | 7 | 8 | 6 | 10 | 11 | |

| Human interleukin Human interleukin Human interleukin Human interleukin Human interleukin | | Human interleukin | |
|---|--|---|---|
| 22 AAE08676 22 AAE08680 22 AAE08682 22 AAE08681 22 AAE08685 22 AAE08684 | | 22 AAE08695 22 AAE08697 22 AAE08699 22 AAE08703 22 AAE08692 22 AAE08694 22 AAE08696 | 22 AAE08698 22 AAE08700 22 AAE08700 22 AAE08677 21 AAX53890 21 AAX53890 21 AAX66119 21 AA807601 21 AA807683 21 AA807683 21 AAX70653 |
| | | | 2227 2227 2227 2227 87 87 1123 2002 2002 |
| 99999999999999999999999999999999999999 | | | 99999999999999999999999999999999999999 |
| 1063 1061 1061 1060 1060 | 1058 1058 1058 1058 1054 1054 | 1054 1054 1054 1053 1053 | 1053 1053 1053 1034 459 446 1446 199 |
| 112 114 115 116 | 22 22 23 24 25 26 | 27 28 29 31 32 34 | 33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 |

ALIGNMENTS

```
Secreted protein; transmembrane protein; PRO1484; PRO4334; PRO1122; PRO48359; PRO1890; PRO1887; PRO44185; PRO4353; PRO4352; PRO4380; PRO4354; PRO43690; PRO4086; PRO5737; PRO425; PRO5990; PRO60309; PRO4424; PRO4422; PRO4430; PRO4499; tumour; obesity; diabetes;
                                                                                                                                                                            Schonlein-Henoch purpura; celiac disease; dermatitis herpetiformis;
                                                                                                                                                                                                                                                                                                                                                   112..121
/note= "tyrosine kinase phosphorylation site"
133..139
                                                                                                                                                                  insulinemia; kidney disorder; Bergers disease; nephropathy
                                                                                                                                                                                                                                                                                     /note= "leucine zipper pattern"
32.38
/note= "N-myristoylation site"
                                                                                                                                                                                                                                                                                                                                        "N-myristoylation site"
                                                                                                                                                                                                                                                                /note= "signal peptide"
                                                                                             novel polypeptide designated PRO1122.
                                                                                                                                                                                                                                       Location/Qualifiers
1..18
                       Æ
                     AAB18911 standard; Protein; 197
                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                              55..61
/note=
                                                                                                                                                                                           Crohns disease
                                                                                                                                                                                                                                                                                                                                                                                                   WO200056889-A2
                                                                                                                                                                                                                                                                                                    Modified-site
                                                                                                                                                                                                                                                                                                                            Modified-site
                                                                                                                                                                                                                                                                                                                                                   Modified-site
                                                                                                                                                                                                                                                                                                                                                                           Modified-site
                                                                                                                                                                                                                   Homo sapiens
                                                                     08-FEB-2001
                                             AAB18911;
                                                                                                                                                                                                                                           Key
Peptide
                                                                                                                                                                                                                                                                              Region
           AAB18911
RESULT
```

```
181 efihvpvgctcvlprsv 197
            EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                     18..197
                                                                                                                                                                                                                                                                                  /note=
                                                                                                                                                                                                                                                                                                                                                                                                                   Gorman DM, Bazan JF,
                                                                                                                                                                                                                                                                                                                                                                                             (SCHE ) SCHERING CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-466130/40.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   197 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAA58991
                                                                                                                                                                                                                                                                                                       WO200042188-A2..
                                                                                                                                                                                                                                                                                                                                                                        11-JAN-1999;
                                                                                                                                   07-NOV-2000
                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                             20-JUL-2000
                                                                                                             AAB07602;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
                                                                                                                                                                                                                                               Peptide
                                                                                                                                                                                                                                                                       Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             fluids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
            181
                                                                              AAB07602
                                                                                                                                                                                                                                       Key
                                                                   RESULT
                                셤
                                                                                                                ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence represents a secreted or transmembrane polypeptide.

The specification describes polypeptides designated PRO1484, PRO4334,

PRO1122, PRO1889, PRO1880, PRO1887, PRO41853, PRO4455, PRO4405,

PRO4356, PRO4352, PRO4480, PRO4684, PRO4409, PRO4455, PRO5990,

PRO6030, PRO4424, PRO4422, PRO4430 and PRO4499. PRO1889 polypeptide is useful for diagnosing tumour in a mammal. The polypeptides, their agonists and antagonists are useful treating a condition associated with expression or activity of the polypeptide. Conditions treated include obesity, diabetes or hyper-or hypo-insulinemia. The polypeptides are capable of inducing proliferation of mammalian kidney mesangial cells and are therefore useful for treating kidney disorders associated with decreased mesangial cell function such as Bergers disease or other nephropathies associated with Schonlein-Henoch purpura, celiac disease, dermatitis herpetiformis or Crohns disease. The nucleic acids may be used to generate transgent and also for chromosome identification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pan J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 mtllpgllfltwlhtclahhdpslrghphshgtphcysaeelplggapphllargakwgg 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                                                                                                                                                                                                 Novel secreted and transmembrane polypeptides useful for diagnosing tumour in a mammal, for identifying agonists and antagonists of the polypeptide and for therapeutic use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 21; Length 197;
                                                                                                                                                                                                                                                                                  Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                 Godowski PJ,
Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%; Score 1073; DB 21; 100.0%; Pred. No. 4.6e-109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              .
,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                 Goddard A,
Wood WI,
                                                                                                                                                                                                                                                                                                                                                                                             Claim 12; Fig 6; 222pp; English.
                                                                 99US-0125778.
99US-0125826.
99US-0127035.
                                                                                                99US-0127706.
99US-0130359.
99US-0131270.
                                                                                                                                                       99US-0132371
99US-0132379
                                                                                                                                                                                          99US-0135750
                                                                                                                                   99US-0131272
                                                                                                                                               99US-0131291
                                                                                                                                                                               99US-0132383
                                                                                                                                                                                                              99US-0144791
                                                                                                                                                                                                                                    99us-0170262
                                 01-MAR-2000; 2000WO-US05601
                                                                                                                                                                                                                                                                                 Eaton DL, G
Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best_Local Similarity 100.
Matches 197; Conservative
                                                                                                                                                                                                                                                            (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                WPI; 2000-628263/60.
N-PSDB; AAA96338.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      197 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tissue typing
                                                                                                                                                                                                                                                                                 Desnoyers L,
Stewart TA,
                                                                                                                                 27 - APR-1999;
27 - APR-1999;
                                                                                                                                                       04-MAY-1999;
04-MAY-1999;
           28-SEP-2000
                                                                                                                         27-APR-1999
                                                                                                                                                                               04-MAY-1999
                                                                                                                                                                                          25-MAY-1999
                                                                                                                                                                                                               20-JUL-1999;
                                                                                                                                                                                                                                    09-DEC-1999;
                                                                             24-MAR-1999
                                                                                                                                                                                                                           03-AUG-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                         31-MAR-1
                                                                                                             21-APR-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
Q
```

ò 음 ò a ò

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The polypeptide is an IL-17-like (CTLA-8 related) protein. It is a member of a new group of interleukins, IL-170 polypeptides. The members comprise IL-172, IL-173, IL-174, IL-177, and IL-171. IL-170 protein can be used to treat abnormal proliferation e.g. cancer or degenerative conditions. Antibodies can be used in diagnostic methods to detect over production of IL-170 protein in cells or body
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present sequence represents an interleukin-171 (IL-171) polypeptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFFHT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated polynucleotide encoding a mammalian Interleukin-17 like protein used to identify genes for homologous proteins -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                           Interleukin; IL-17; CTLA-8; IL-170; IL-172; IL-173; IL-174; IL-176;
IL-177; IL-171; cell proliferation; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; Score 1073; DB 21; Length 100.0%; Pred. No. 4.6e-109; ive 0; Mismatches 0; Indels
                                                                                                                                                                           A human interleukin (IL) 171 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  "mature protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Page 20-21; 111pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Kastelein RA;
                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
   AA.
AAB07602 standard; Protein; 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-JAN-2000; 2000WO-US00006.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-0228822
                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 100.
Matches 197; Conservative
```

~

셤

ò

```
AAY92238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein
                                                                          61
                                                                                                                                                                                                                                                                                                                          181
                                                                                                                                                                                                                                                                                                                                                                                                RESULT
AAY92238
                                                                                                                                                                                                                     В
                                                                        δý
                                                                                                                      Pp
                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                         ŏ
                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence represents an interleukin (IL)-171 polypeptide. It is a mammalian homologue of the cytokine designated CTLA-8 (also referred to as IL-17. The specification also describes homologues IL-171, IL-172, IL-173, IL-173, IL-174, IL-176, and IL-177. The DNA sequence encoding IL-171 is useful for identifying genes, mRNA and sequence encoding IL-171 is useful for identifying genes, mRNA and LI-171 protein, antibodies against IL-171, and compounds which have binding affinity to IL-171 are useful in treatment of conditions associated with abnormal physiology or development, including abnormal proliferation, e.g. cancerous conditions, or degenerative conditions. The IL-171 protein can be used in kits and assay methods for identifying compounds that selectively bind to IL-171.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New DNA sequence encoding a mammalian homolog of CTLA-8, designated interleukin-171 (IL-171), useful for recombinant production of IL-171 which can be used for treating conditions associated with abnormal physiology or development
  121 pqklafaeclcrgcidartgretaalnsvrllgsllv1rrrpcsrdgsg1ptpgafafht 180
                                                                                                                                                                                                                                                                                                                                                                                                                    Interleukin; IL-171; cytokine; CTLA-8; IL-17; IL-175; IL-172; IL-173;
IL-174; IL-176; IL-177; cell proliferation; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "putative glycosylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "mature protein" 55..57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1..17
/note= "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 11; Page 10-11; 111pp; English.
                                                                                                                                                                                                                                                                                                                                                                   A human interleukin-171 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Kastelein RA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                        AAB07684 standard; Protein; 197 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-JAN-2000; 2000WO-US00005.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0229402
                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18..197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sorman DM, Bazan JF,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (SCHE ) SCHERING CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2000-476060/41.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; AAA59149.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200042187-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-JAN-1999;
                                                                                                                                                                                                                                                                                                                     07-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JUL-2000.
                                                                                                                                                                                                                                                                         AAB07684;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                 AAB07684
                                                                                                                                                                          RESULT
```

```
neutrophils, granulocytes, or platelets, this may be useful during chemotherapy. IL-17 homologues have at least one activity selected from induction of cytotoxic T cells, induction of Imphokine-activated killer cell proliferation or a B or T cell stimulation. The IL-17 homologue may also be used to treat viral or bacterial infections, immune related diseases, anemia, leukemia, thrombocytopenia, uremia, von Willebrand disease, postoperative cardiovascular dysfunction, treatment of AIDS (acquired immune deficiency syndrome)-related bone marrow failure, and inflammatory diseases of the gastrointestinal system, joints, and lungs.
                             61 alpvalvssleaashrgrherpsattgcpvlrpeevleadthgrsispwryrvdtdedry 120
                                                          PQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                                                                          Nucleic acid encoding an interleukin-17 (IL-17) homolog polypeptide which enhances hematopoiesis, useful for treating e.g. anemia, thrombocytopenia, viral and bacterial infections
ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Interleukin 17 (IL-17) stimulates hematopoiesis and production of
                                                                                                                                                                                                                                                                                                                                                         Interleukin 17; IL-17; haematopoiesis; chemotherapy; cytostatic; antianemic; cardiant; hemostatic; anti-inflammatory; anti-HIV.
                                                                                                                                                                                                                                                                                                                            Human interleukin-17 (IL-17) homologue.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /label= signal_peptide
19.197
/label= mature_protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Liu L;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 16; Page 92-93; 111pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                    AA.
                                                                                                                                                                                                                                AAY92238 standard; Protein; 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Wei J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0102883.
98US-0110405.
99US-0138910.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US22678
                                                                                                                        181 EFIHVPVGCTCVLPRSV 197
                                                                                                                                        efihvpvgctcvlprsv 197
                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Glasebrook AL, Su EW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ELIL ) LILLY & CO ELI.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2000-303778/26.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       197 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; AAA09153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200020593-A1.
                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            02-OCT-1998;
                                                                                                                                                                                                                                                                                             10-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
```

; 0

Gaps

0;

100.0%; Score 1073; DB 21; Length 197; 100.0%; Pred. No. 4.6e-109; ive 0; Mismatches 0; Indels 0;

al Similarity 100. 197; Conservative

Query Match Best Local

Matches

δ

1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60

```
181 EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34..40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63..68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
WPI; 2000-116314/10.
N-PSDB; AAZ29728.
                                                                                                                                                                             Similarity
                                                                                                                                               AA;
                                                                                                                                               197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                               13-MAR-2000
                                                                                                                                                                                   Matches 197;
                                                                                                                                                Sequence
                                                                                                                                                                     Query Match
Best Local S
                                                                                                                                 disorder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Domain
                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                           181
                                                                                                                                                                                                                                                                                                                                  RESULT
AAY53892
g
                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                               q
                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                             δ
                               ö
                                                                                                                                                                                                                                                       Interleukin; IL-17C; PRO1122 polypeptide; clone DNA62377-1381-1; UNQ561; cytokine IL-17; cytotoxic T-lymphocyte-associated antigen 8; CTLA-8; hybridisation probe; antagonist; degenerative cartilaginous disorder; agonist; diagnose; therapy.
                                                                                                                  61 ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                   PQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                               Gaps
                                              MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                      19...197
/label- Mature_IL-17C_polypeptide
/note- "Used to treat degenerative cartilaginous
                               ;
0
               Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Wood
                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ή,
               DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ľį
               Score 1073; DB 21;
Pred. No. 4.6e-109;
                                                                                                                                                                                                                                                                                                                                                                       'note= "Conserved Trp residue"
                                                                                                                                                                                                                                                                                                                                                                                                     residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                   'note= "Conserved Cys residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                  "Conserved Cys residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ΑĽ,
                               Mismatches
                                                                                                                                                                                                                                        Human Interleukin 17C, PRO1122 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gurney
                                                                                                                                                                                                                                                                                                                   1..18
/label- Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                      'note= "Conserved Cys
                                                                                                                                                                                                                                                                                                                                                                                                    'note= "Conserved Cys
                                                                                                                                                                                                                                                                                                                                                                                                                    note- "Conserved Cys
                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                           AAY44460 standard; Protein; 197 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Goddard A,
                              ö
               100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0085579.
                                                                                                                                               efihvpvgctcvlprsv 197
                                                                                                                                       EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                          (first entry)
                               Conservative
                                                                                                                                                                                                                                                                                                                                                         disorder"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC
                       Similarity
                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-MAY-1998;
23-DEC-1998;
                                                                                                                                                                                                                          27-MAR-2000
                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9960127-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14-MAY-1999;
                              Matches 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               25-NOV-1999
                                                                                                                                                                                                           AAY44460;
               Query Match
                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chen J,
                                                                                                                                                                                                                                                                                                                   Peptide
                                                                                                                                                                                                                                                                                                                                  Protein
                                                                                                         121
                                                                                                                                       181
                                                                                                                                                       181
                                                                                                                                                                                    AAY4460
                                              ò
                                                            පි
                                                                           ò
                                                                                          g
                                                                                                         ò
                                                                                                                       Op
                                                                                                                                       ò
                                                                                                                                                      qq
```

```
ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; interleukin-22; IL-22; IL-21; immune system disorder; mimune cell chemotaxis; haematopoietic cell disorder; haemostatic activity; thrombolytic activity; autoimmune disorder; respiratory problem; organ rejection; graft-versus-host disease; GVHD; inflammation; hyperproliferative disorder; tissue regeneration; embryonic stem cell differentiation; embryonic stem cell differentiation; embryonic stem cell differentiation active.
                                                                                                                                             The present sequence is the human PRO1122 polypeptide, also referred to as UNQ561, and as interleukin-17C (IL-17C), encoded by clone UNA6237-1381-1. This sequence has identity with the cytokine IL-17 and cytotoxic T-lymphocyte-associated antigen 8 (CTLA-8) and has leucine zipper pattern. PRO1122 is expressed in pancreas, small intestine, stomach and testis also. It shares about 26-28% amino acid identity with IL-17 and IL-17B. The entire coding region of IL-17C can be used as hybridisation probe. The PRO1122 polypeptide, agonist or antagonist, is used to diagnose and treat a degenerative cartilaginous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   121 PQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               61 ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ
New polypeptides designated PRO1031 and PRO1122 used to treat a degenerative cartilaginous disorder \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   3; DB 21;
4.6e-109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /nocc
104..109
/note= "conserved domain VII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Amino acid sequence of human interleukin-21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "conserved domain VI"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "conserved domain V"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1073;
Pred. No. 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1..18
/note= "signal peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY53892 standard; Protein; 197
                                                                                              Claim 23; Fig 3; 141pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        efihvpvgctcvlprsv 197
```

S

(first entry)

```
AAG66121 standard; Protein; 197 AA.
                                                                                              13-MAR-2002
                                                                    AAG66121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (RUBE/)
                                                                                                                                                                                                                                       Peptide
                                                                                                                                                                                                                                                                      Protein
                                                                                                                                                                                                                                                                                                  Domain
                                                                                                                                                                                                                                                                                                                                                       Domain
                                                                                                                                                                                                                                                                                                                                                                                  Domain
                                                                                                                                                                                                                                                                                                                            Domain
                                                                                                                                                                                                                                                                                                                                                                                                               Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                           Oomain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Дома1n
                            AAG66121
                                                                    The present sequence represents a human interleukin-21 (IL-21) protein. The specification also describes IL-22 polynucleotides and polypeptides. The IL-21 and IL-22 may be useful in treating of apoptotic T-cells. IL-21 and IL-22 may be useful in treating of apoptotic T-cells. IL-21 and IL-22 may be useful in treating of deficiencies or disorders of the immune system, by activating or inhibiting the proliferation, differentiation, or mobilization (chemotaxis) of immune cells, treating or detecting deficiencies or disorders of haematopoietic cells, to modulate haemostatic or thrombolytic activity, in treating or detecting autoimmune disorders, treating asthma (particularly allergic asthma) or other respiratory problems, to treat and/or prevent organ rejection or graft-versus-host problems, to treat and/or prevent organ rejection or graft-versus-host properproliferative disorders, to treat or detect infectious agents, to differentiate, proliferate and attract cells, leading to the crease or decrease the differentiation or proliferation of embryonic stem cells and characterical inneage, may be used to modulate mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                      Novel polynucleotides used to develop products for treating e.g. immune disorders, blood disorders, autolmmune disorders, allergies, inflammation, hyperproliferative disorders or infections
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match 100.0%; Score 1073; DB 21; Best Local Similarity 100.0%; Pred. No. 4.6e-109; Matches 197; Conservative 0; Mismatches 0; 1
                                      156..162
/note= "conserved domain III"
                                                                  185..192
/note= "conserved domain IV"
"conserved domain I"
                                                                                                                                                                                                                                                                                                                                                                                                              Claim 26; Fig 6A-B; 170pp; English
                          "conserved
                                                                                                                                                                                            98US-0097340.
98US-0099805.
99US-0131965.
                                                                                                                                                                                                                                                     (HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                  99WO-US11644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       efihvpvgctcvlprsv 197
           ..134
 /note=
                          /note=
                                                                                                                                                                                                                                                                                                            2000-072622/06.
                                                                                                                                                                                                                                                                                Ruben SM, Ebner R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               197 AA;
                                                                                                                                                                                                                                                                                                                            N-PSDB; AAZ36836.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   characteristics.
                                                                                                                                                                  27-MAY-1999;
                                                                                                            W09961617-A1
                                                                                                                                                                                             29-MAY-1998;
                                                                                                                                                                                                          10-SEP-1998;
30-APR-1999;
                                                                                                                                        02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
             Domain
                                       Domain
                                                                    Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
```

ò g ò g δ g ð

```
The invention relates to novel human proteins designated interleukin (IL)-21 and IL-22. The IL-21 and IL-22 polynucleotides can be used in Inkage analysis as a marker for those specific chromosome, in chromosome mapping, to control gene expression through triple helix formation or antisense DNA or RNA, in gene therapy, in identifying individuals from minute biological samples, as an alternative to restriction fragment length polymorphism (RFLP) analysis, as polymorphic markers for forensic purposes, as molecular weight markers, or as diagnostic probes. IL-21 and IL-22 polypeptides can be used to treat, prevent or diagnose diseases of the immune system by activating or inhibiting the proliferation,
                                               Interleukin; IL-21; IL-22; immunosuppressive; cytostatic; thrombolytic; antiinflammatory; antibacterial; gene therapy; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New interleukin-21 and interleukin-22 polynucleotides and polypeptides,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           useful for treating, preventing or diagnosing e.g. disorders of hematopoietic cells, autoimmune disorders, or hyperproliferative
Human interleukin (IL)-21 amino acid sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /note= "conserved domain III"
185..192
                                                                                                                                                                                                                                                                                                                                                                                                                                                              "conserved domain VII"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               185..192
/note= "conserved domain IV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note= "conserved domain VII
113..121
/note= "conserved domain I"
                                                                                                                                                                                                                                                                                                                                               /note= "conserved domain V"
                                                                                                                                                                                                                                                              19..197 "mature protein"
                                                                                                                                                                                                                                 /note= "signal peptide"
                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 26; Fig 6A-B; 87pp; English.
                                                                                                                                                                                                                                                                                                                                                                            63..68
/note= "conserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "conserved
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99US-131965P.
99US-169837P.
99US-0320713.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US11644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-DEC-2000; 2000US-0731816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .162
                                                                                                                                                                                                                                                                                                                                                                                                                                 ..109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129..134
                                                                                                                                                                                                                                                                                                                      34..40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note=
156..16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-638470/73.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ruben SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EBNER R.
RUBEN S M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAI67878.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 US2001023070-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EBNE/) EBNER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-MAY-1998;
30-APR-1999;
09-DEC-1999;
27-MAY-1999;
                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20-SEP-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ebner R,
```

```
Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121
  80 X C C C C C C C C C C C C C C C X S X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D D X D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         δ
                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRO polypeptide; mammal; tumour; cancer; human; cattle; horse; sheep; dog; cat; plg; goat; rabblt; tumour necrosis factor alpha; TNF-alpha; blood; chondrocyte cell; cell proliferation; cell differentiation; colon; adrenal; lung; breast; prostate; rectum; cervix; liver; genetic disorder.
                hematopoietic cells (e.g. ataxia, human immunodeficiency virus (HIV) infection, anemia, thrombocytopenia), autoimmune disorders (e.g. Grave's disease, systemic lupus erythematosus, ophthalmia), graft versus host disease, inflammation, hyperproliferative disorders, or infectious can be used to treat, inhibit or prevent diseases or conditions associated with aberrant expression and/or activity of IL-21 or IL-22. The present sequence represents the amino acid sequence of human IL-21.
                                                                                                                                                                                                                                                                                                                                                                                                                        61 ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                               121 POKLAFAECLCRGCIDARTGRETAALNSVRLLOSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                           MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                              100.0%; Score 1073; DB 22; Length 197; 100.0%; Pred. No. 4.6e-109;
differentiation or mobilization of immune cells, disorders of
                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                       .;
0
                                                                                                                                                                                                                                                                                                     0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human PRO polypeptide sequence #224.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU29247 standard; Protein; 197 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-187202P.
2000US-186968P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-189328P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2000US-191007P.
2000US-191048P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-192655P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-193032P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-FEB-2001; 2001WO-US06520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US05841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000US-189320P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000WO-US06884
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-190828P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-191314P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         2000US-193053P.
2000WO-US08439.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2000US-194449P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       efihypygctcylprsv 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  181 EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    18-DEC-2001 (first entry)
                                                                                                                                                                                                                                                              Query Match 100.
Best Local Similarity 100.
Matches 197; Conservative
                                                                                                                                                                                                   197 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200168848-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14-MAR-2000;
15-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       29-MAR-2000;
29-MAR-2000;
30-MAR-2000;
04-APR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        06-MAR-2000;
14-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21-MAR-2000;
21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21-MAR-2000;
28-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU29247;
                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8
                                                                                                                                                                                                                                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAU29247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
8888888888888
                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                        ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
Sequences AAU29024-AAU29328 represent PRO polypeptides of the invention.

The PRO polypeptides and their associated nucleic acids can be used to detect the presence of a tumour in a mammal by comparing the level of expression of a PRO polypeptide in a test sample of cells from the animal and a control sample of normal cells, whereby a higher level of expression in the test sample indicates the presence of a tumour in the mammal. Mammals include dogs, cats, cattle, horses, sheep, pigs, goats and rabbits but are preferably human. The polypeptides can be used to stimulate tumour necrosis factor (TMF) alpha release from human blood, when contacted with it. A specific polypeptide can be used to stimulate the proliferation or differentiation of chondrocyte cells. The PRO proteins can be used to determine the presence of tumours and also susceptibility to tumour development, particularly adrenal, lung, colon, breast, prostate, rectal, cervical, or liver tumours, in mammalian subjects. The oligonucleotide probes specific for the PRO nucleic acids can be used for genetic analysis of individuals with genetic disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel nucleic acids encoding PRO polypeptides, used to diagnose the presence of tumours, such as prostate and breast tumours, in mammals and to screen for modulators of the compounds -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Godowski PJ, Gurney AL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goddard A, Godo
ood WI, Zhang Z;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 1073; DB 22; 100.0%; Pred. No. 4.6e-109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             L, GOG WI,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 11; Fig 448; 774pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baker KP, Chen J, Desnoyers L
Pan J, Smith V, Watanabe CK,
11-APR-2000; 20000S-195975P.
11-APR-2000; 20000S-196600P.
11-APR-2000; 20000S-196690P.
11-APR-2000; 20000S-196820P.
11-APR-2000; 20000S-196820P.
18-APR-2000; 20000S-199397P.
25-APR-2000; 20000S-199397P.
25-APR-2000; 20000S-199564P.
25-APR-2000; 20000S-199564P.
25-APR-2000; 20000S-199564P.
25-APR-2000; 20000S-199564P.
25-APR-2000; 20000S-199564P.
25-APR-2000; 20000S-201516P.
27-MAY-2000; 2000WO-US14041.
28-JUN-2000; 2000WO-US14941.
28-JUN-2000; 2000WO-US1564.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              22-AUG-2000; 2000US-0644848
24-AUG-2000; 2000WO-US23328
08-NOV-2000; 2000WO-US30952.
01-DEC-2000; 2000WO-US32678.
20-DEC-2000; 2000WO-US34956.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sal Similarity 100.
197; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-602746/68.
N-PSDB; AAS46148.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 197 AA;
```

```
AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                            . 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                 27-MAR-2000
       diagnosis
Novel PRO
                                                                                                                                                                             sequence
                                                                                                                                                                                                                                                                                                                                                                                                 AAY44485;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Protein
                                                                                                                                                                                                                                                                                                                                                                  10
                                                                                                                                                                                                                                                                              61
                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                          AAY44485
ID AAY4
qq
                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                           pp
                                                                                                                                                                                                                                  δ
                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                    Human; Interleukin-17C ligand; IL-17C; agonist; antagonist;
PRO1122; DNA 62377-1381-1; systemic lupus erythematosus;
rheumatoid arthritis; osteoarthritis; diabetes mellitus;
allergic disease; asthma; demyelinating disease;
degenerative cartilaginous disorder; transplantation associated disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Grimaldi CJ;
Vandlen RL;
                                                                                                                                                                                                                                                                                             "Tyrosine kinase phosphorylation site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Filvaroff E, Fong S, Goddard A, Godowski PJ,
L, Li H, Hillan KJ, Tumas D, Van Lookeren M,
CK, Williams PM, Wood WI, Yansura DG;
                                                                                                                                                                                                                                                                              "Region homologous to IL-17"
                                                                                                                                                                                                                 'note= "Leucine zipper pattern"
                                                                                                                                                                                                                                                       55..61
/note= "N-myristoylation site"
                                                                                                                                                                                                                                                 /note= "N-myristoylation site"
                                                                                                                                                                                                                                                                                                             /note= "N-myristoylation site"
                                                                                                                                                                                                  /label= Signal_peptide
                                                                                                                                                                                                                        19..197
/label- Mature_IL_17C
                                                                                                       Human Interleukin 17C ligand, IL-17C.
                                                                                                                                                                                   Location/Qualifiers
                                                          AAU04951 standard; Protein; 197 AA
                                                                                                                                                                                                                                                                                                                                                                                       2000US-0175481.
2000WO-US04341.
2000WO-US05841.
                                                                                                                                                                                                                                                                                                                                                                                                                                              22-AUG-2000; 2000US-0644848.
24-AUG-2000; 2000WO-US23328.
24-OCT-2000; 2000US-0242837.
                                                                                                                                                                                                                                                                                                                                                                                 99WO-US31274
                                                                                                                                                                                                                                                                                                                                                                                                                               2000WO-US15264
2000US-0213087
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    10-NOV-2000; 2000WO-US30873
28-NOV-2000; 2000US-0253646
                                                                                                                                                                                                                                                                                                                                                         20-DEC-2000; 2000WO-US34956
                                                                                                                                                                                                                                                                                                                                                                                                                2000US-0191007
                                                                                                                                                                                                                                                                                                                                                                                                                        2000WO-US07532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000WO-US32678
             efihvpvgctcvlprsv 197
                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                     ..139
                                                                                                                                                                                                                                                                                      .121
                                                                                                                                                                                                                                                                       99..125
      EFIHVPVGCTCVLPRSV
                                                                                                                                                                                                                                                                                               /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (GETH ) GENENTECH INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-451708/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-PSDB; AAS09510
                                                                                                                                                                                                                                                                                                                            WO200146420-A2
                                                                                                                                                                                                                                                                                                                                                                                                18-FEB-2000;
02-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUN-2000;
22-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Watanabe CK,
                                                                                                                                                                                                                                                                                                                                                                                         11-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                21-MAR-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                        21-MAR-2000;
                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-DEC-2000;
                                                                                        24 -OCT - 2001
                                                                                                                                                                                                                                                                                                                                                                          23-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                 30-DEC-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AL,
                                                                         AAU04951;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chen J,
Gurney A
                                                                                                                                                                                          Peptide
                                                                                                                                                                                                                         Protein
                                                                                                                                                                                                                                                                                     Region
                                                                                                                                                                                                          Region
                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                        Region
                                                                                                                                                                                                                                                                       Region
                                                                                                                                                                                                                                                                                                      segion.
                                           σ
      181
                     181
                                                   AAU04951
                                           RESULT
      ò
```

```
The sequence is PRO1122 which is the human Interleukin 17C ligand,
IL-17C, encoded by DNA 62377-1381-1. A composition
containing ant_Agonists to the PRO polypeptides or individual components
containing ant_Agonists to the PRO polypeptides or individual components
containing ant_Agonists to the PRO polypeptides or individual components
containing ant_Agonists to the PRO polypeptides or individual components
contained in the property aspondyloarthropathy, systemic sclerosis, an idiopathic inflammatory myopathy, Sjogren's syndrome, systemic clerosis, and idiopathic inflammatory myopathy, Sjogren's syndrome, systemic thrombocytopaenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, a demyelinating disease, an autoimmune or immune-mediated renal disease, contact dermatitis, an allergic disease e.g. food hypersensitivity, asthma, a transplantation associated disease, or a chronic inflammatory demyelinating polyneuropathy. Treating a pRO1031 or pRO1122 polypeptide agonist, or antagonist to the mammal. Numerous examples of the diseases and disorders are given in the specification.
                                                                                                                                                                                                                                                                                                                                                                                          an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Interleukin; IL-17C.his; PRO1122 polypeptide; clone DNA62377-1381-1; immunoprecipitation; IL-17 receptor extracellular domain; IL-17R ECD; cytokine IL-17; hybridisation probe; antagonist; Gly(His)8 tag; agonist; degenerative cartilaginous disorder; diagnose; therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polypeptides homologous to interleukin-17, useful for the and treatment of immune related disease e.g. rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= Mature_IL-17C_polypeptide
/note= "Used to treat degenerative cartilaginous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human Interleukin 17C with C-terminal Gly(His)8 tag, IL-17C.his
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 197;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1073; DB 22;
Pred. No. 4.6e-109;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "Conserved Trp residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1..18
/label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAY44485 standard; Protein; 206 AA.
                                                                                                                                          Claim 10; Fig 4; 188pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 100.
Best Local Similarity 100.
Matches 197; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disorder"
109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .197
                                                                     and diabetes
```

```
Human Interleukin 17C-IgG1 Fc fusion protein, hIL-17C.fc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US10733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0085579.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 100.
Best Local Similarity 100.
Matches 197; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chen J, Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2000-116314/10.
                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            425 AA;
                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO9960127-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-MAY-1998;
23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                Peptide
                                                                                                                                                                                                    Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                 Key
   NEW WENT TO THE PROPERTY OF TH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence is the human PRO1122 polypeptide, with a C-terminal Gly(His) B tag, IL-17C.his, derived from the clone DNA62377-18B1-1.
This sequence is used in a competitive binding experiment for the immunoprecipitation of IL-17 receptor extracellular domain (IL-17R ECD). The entire coding region of IL-17C can be used as hybridisation probe. The PRO1122 polypeptide, agonist or antagonist, is used to diagnose and treat a degenerative cartilaginous disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 PQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                         WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21; Length 206;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             polypeptides designated PRO1031 and PRO1122 used to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                         Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ή,
                                                                                                                                                                                                                                                                                                                                                                                                                                         Ľ
                                                                                                                                                                              198..206
/note= "C-terminal Gly(His)8 tag"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score 1073; DB 21; 100.0%; Pred. No. 4.9e-109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                         /note= "Conserved Cys residue" Misc-difference 189
                                                                                                                                             /note= "Conserved Cys residue"
Misc-difference 198..206
                  "Conserved Cys residue"
                                                      Cys residue"
                                                                                                                         'note= "Conserved Cys residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                       Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 11; Page 138-139; 141pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                degenerative cartilaginous disorder
                                                   'note= "Conserved
                                                                                                                                                                                                                                                                                                                                                                                                                                     Goddard A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              425
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                             98US-0085579,
98US-0113621,
                                                                                                                                                                                                                                                                                                            99WO-US10733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY4462 standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    efihvpvgctcvlprsv 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 197; Conservative
                    /note=
                                                                                                                                                                                                                                                                                                                                                                                                   (GETH ) GENENTECH INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                       Filvaroff E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2000-116314/10.
Misc-difference 129
                                                                      Misc-difference 163
                                                                                                                                            Misc-difference 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  206 AA;
                                   Misc-difference
                                                                                                                                                                                                                                    WO9960127-A2
                                                                                                                                                                                                                                                                                                            14-MAY-1999;
                                                                                                                                                                                                                                                                                                                                             15-MAY-1998;
23-DEC-1998;
                                                                                                                                                                                                                                                                        25-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY4462;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Chen J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY4462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT
ΩI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               XXXXEX
```

```
The present sequence is the human IL-17C.fc fusion protein, derived from PRO1122 polypeptide and the Fc region of human 1gG1. The cytokine IL-17C can be used to induce the release of TNF-11pha from human leukemic monocytic, THP-1 cells. The fusion protein, IL-17C.fc is used to identify the binding of IL-17C to THP-1 cells, using fluoresence-activated cell sorter analysis (FACS).
Interleukin; IL-17C.fc; fusion protein; PRO1122 polypeptide; cytokine; human IgG1; fluoresence-activated cell sorter analysis; FACS; Tumour Necrosis Factor-alpha; TNF-alpha; leukemic monocyte; THP-1 cell.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Sequence derived from Fc region of human IgG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121 POKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHT 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRY 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 MTLLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQ 60
                                                                                                                                                                    1..18
//label= Signal_peptide
19..197
//label= Mature_IL-17C_polypeptide
//note= "Used to treat degenerative cartilaginous
disorder"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 425;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Wood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nseq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Ĥ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ī
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 1073; DB 21,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New polypeptides designated PRO1031 and PRO1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note= "Conserved Cys residue"
197..425
                                                                                                                                                                                                                                                                                                                                           note= "Conserved Trp residue"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gurney AL,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%; Score ...
100.0%; Pred. No. 1.3e-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 12; Page 129-130; 141pp; English.
                                                                                                                                                                                                                                                                                                                                                                                         'note= "Conserved Cys
                                                                                                                                                                                                                                                                                                                                                                                                                                         'note- "Conserved Cys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      note= "Conserved Cys
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         note= "Conserved Cys
                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          degenerative cartilaginous disorder
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Goddard A,
```

us-09-854-208-3.rag

```
AAE08680
  25555×8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A CONTRACTOR OF THE CONTRACT O
                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Db
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dp
                                                                                                                                                                                                                                                                                                                               ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like receptors on their surface. IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; ssthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating and preventing inflammatory disease, autoimmune disease, allorgies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
49. 227
/label= Mature_human_IL-17_like protein
                                                                                                                                                                                                                                                                                                                                                                                                     Human interleukin (IL)-17 like protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /label= Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                   AAE08676 standard; Protein; 227 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 14; Fig 1A; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-FEB-2001; 2001WO-US03916.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                      efihvpvgctcvlprsv 197
                                                                         EFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAD15291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200159120-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                    15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rejection
                                                                                                                                                                                                                                                                                                  AAE08676;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide
                       121
                                                                      181
                                                                                                                     181
                                                                                                                                                                                                                      AAE08676
                                                                                                                                                                                                                                                                          ò
```

```
ó
gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; ssthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                       KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                           PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                            3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                      ;
0
                                                                                                                                                                                                                         Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "Wild-type Leu substituted with Ile"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human interleukin (IL)-17 like protein mutant (Leu471le).
                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                         Score 1063; DB 22;
Pred. No. 6.9e-108;
                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ¥.
                                                                                                                                                                                                       99.1%; Scc.
100.0%; Pre
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAE08680 standard; Protein; 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-FEB-2001; 2001WO-US03916.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-529841/58.
                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                    227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     16-AUG-2001
                                                                                                                                                                                                                                                                            Matches 195;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       rejection
                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAE08680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                             63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            153
```

Location/Qualifiers

The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying buinding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is surface.

IL-17 like protein, agonist and antagonist are useful for treating acute and enronic inflammation such as rheumanic disease, autoimmune disease.

IL-17 like proventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or independent and destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and constant and also and preventing the indicated genes on chromosomes, as hybridisation probes in diagnostic. ö assays. Non-human animals in which the promoter for one or more of IL-17 like profein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Leu47Ile). PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122 Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 Gaps LIPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62 ; 0 Length 227; Indels Score 1061; DB 22; Pred. No. 1.1e-107; 1; Mismatches 0; Claim 18; Page -; 117pp; English. (AAE08676), shown in figure 1A. 98.9%; 99.5%; 227 AA; Seguence 63 m

 $\overset{\circ}{\times} \overset{\circ}{\times} \overset{\circ}{\cup} \overset{\circ}$

KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFATTEF 182 Ouery Match 98.9 Best Local Similarity 99.5 Matches 194; Conservative 183 IHVPVGCTCVLPRSV 197 213 ihvpvgctcvlprsv 153) 123 63 ö g ò g ò a g

Human interleukin (IL)-17 like protein mutant (Leu47Met). AAE08682 standard; Protein; 227 AA. 15-NOV-2001 (first entry) AAE08682; **AAE**08682

ó

gene therapy; Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.

sapiens Synthetic. Homo

The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also in inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft KLAFAECLCRGCIDARTGRETAALNSVRLLOSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182 63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122 Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62 ó /note= "Wild-type Leu substituted with Met" Indels Score 1061; DB 22; Pred. No. 1.1e-107; ö 1; Mismatches Claim 18; Page -; 117pp; English. (AAE08676), shown in figure 1A. 98.9%; 99.5%; 07-FEB-2001; 2001WO-US03916. 08-FEB-2000; 2000US-0180864. 27-NOV-2000; 2000US-0722920. Conservative WPI; 2001-529841/58. Similarity Misc-difference 47 (AMGE-) AMGEN INC Bass MB; WO200159120-A2 Matches 194; 16-AUG-2001 rejection Sequence Jing S, Query Match Local 93 123 g δ QQ δ

à

```
protein mutant (Leu47Val)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO200159120-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                Best Local Sim.
Matches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-AUG-2001
                                           Note: The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAE08685;
                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jing S,
                                                                                      derived
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE08685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A COO S COO 
    88888
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present invention relates to interleukin (IL)-17 like polypeptides and and uncleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful for treating and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease.

Consideration or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and prevent and in the process of the IL-17 like gene and prevent and process or shown an inducing the inducing some destruction in the IL-17 like gene and prevent and process the properties and process or shown and for mapping the location of the IL-17 like gene and prevent and process the process or contains the process or the process or contains the process or co
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /note= "Wild-type Leu substituted with Val"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human interleukin (IL)-17 like protein mutant (Leu47Val).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .
Misc-difference 47
                                                                                                                                                                                                                                                                                     AAE08681 standard; Protein; 227 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 18; Page -; 117pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first entry)
183 IHVPVGCTCVLPRSV 197
                                           213 ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rejection
                                                                                                                                                                                                                                                                                                                                                                           AAE08681;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jing S,
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                           PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                           92
                                                                                                                                                                                                                                                                                                                     3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF
                                                                                                                                                                                                                                      ö
                                                                                                                                                                                  Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Wild-type Glu substituted with Asp"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human interleukin (IL)-17 like protein mutant (Glu110Asp).
                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                  ); DB 22;
1.5e-107;
                                                                                                                                                                                                             Pred. No. 1.54
1; Mismatches
                                                                                                                                                                                     Score 1060;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAE08685 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 19; Page -; 117pp; English.
                                                                                                                                                                                     98.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-FEB-2001; 2001WO-US03916.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Misc-difference 110
                                                                                                                                                                                                          Similarity
                                                                                                     227 AA;
```

/note= "Wild-type Leu substituted with Phe"

Misc-difference 47

WO200159120-A2 16-AUG-2001 07-FEB-2001; 2001WO-US03916 08-FEB-2000; 2000US-0180864 27-NOV-2000; 2000US-0722920

```
affinity/activity-tagged IL-17 proteins are useful in binding assays to dentify activity-tagged IL-17 proteins are useful in binding assays to dentify activity-tagged IL-17 proteins are useful in binding assays to consider the compares IL-17 like protein. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of calls which express the IL-17 like protein. Surface.

IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and for blocking the effects of the inducing bone destruction, and for blocking the effects of the inducing bone destruction. IL-17 like molecule is useful in come thereover.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Nor-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Glu110Asp).
                          The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAEO8676), shown in figure 1A.
```

Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft

rejection

WPI; 2001-529841/58.

(AMGE-) AMGEN INC. Jing S, Bass MB;

> 227 AA; Sequence

```
ó;
                                                                     PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                            KLAFAECI.CRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
               Gaps
                              LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                       ö
Length 227;
               Indels
DB 22;
               ó
       Pred. No. 1.5e
1; Mismatches
Score 1060;
                                                                                                                                                                                  AA.
                                                                                                                                                                                 AAE08684 standard; Protein; 227
98.8%;
                                                                                                                                                                                                                15-NOV-2001 (first entry)
               Conservative
                                                                                                                           183 IHVPVGCTCVLPRSV 197
                                                                                                                                           213 ihvpvgctcvlprsv 227
       Best Local Similarity
Matches 194; Conserv
                                                                                                                                                                                                  AAE08684;
Query Match
                                                                                                                                                                  17
                              ٣
                                                                            93
                                                                                            123
                                                                                                           153
                                                                                                                                                                          AAE08684
                                              a
                                                                          g
                                                                                                                                                                                  ò
                                                             à
                                                                                            ö
                                                                                                           g
                                                                                                                           ò
                                                                                                                                           q
```

Human; interleukin; IL-17 like protein; rheumatic disease, gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.

Location/Qualifiers

Key

Homo sapiens. Synthetic.

Human interleukin (IL)-17 like protein mutant (Leu47Phe).

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying barinters, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an acid formic inflammation such as rheammatic diseases, graft versus host and chronic inflammation such as rheammatic diseases, graft versus host treating and preventing inflammatory disease, autoimmune disease.

In-17 like protein, agonist and antagonist are useful for treating and preventing inflammatory disease, autoimmune disease, alleraties, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and for activation, in vivo B cell proliferation and for activation, in vivo B cell proliferation and for activation, in vivo B cell cell dense or chromosomes, as hybridisation probes in diagnostic in the cell of the content of the IL-17 like gene and cell the cell of the content of the IL-17 like gene and cell of the cell o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             pvalvssleaashrgrherpsattqcpvlrpeevleadthqrsispwryrvdtdedrypq 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAEO8676), shown in figure la.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   assays. Non-human animals in which the promoter for one or more of like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Leu47Phe).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98.7%; Score 1059; DB 22;
99.5%; Pred. No. 1.9e-107;
iive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 18; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123
οp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  δ
```

ó

a

```
Claim 18; Page -; 117pp; English
                                                                                                                                               98.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722929.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                213 ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-529841/58.
                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AMGE-) AMGEN INC.
                                                                                   227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Key
Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bass
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-2001
                                                                                                                                                                       Best Local Sim
Matches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAE08679;
                                                                                      Sequence
                                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE08679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5555×8
                                                                                                                                                                                                                                     ολ
                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                            d
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      affinity/activity-tagged IL-17 proteins are useful in binding basays to dentify actily an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to dentify actil theor tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like
                                                                                                                                                                                                                                                                                            Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; sthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antiinflammatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Wild-type Tyr substituted with Phe"
                                                                                                                                                                                                                                                       Human interleukin (IL)-17 like protein mutant (Tyr141Phe).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                         AAE08687 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 20; Page -; 117pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2000US-0180864
2000US-0722920
                                                                                                                                                                                                             (first entry)
illillillillilli
ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-529841/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-FEB-2000;
27-NOV-2000;
                                                                                                                                                                                                             15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rejection
                                                                                                                                                                   AAE08687;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Jing S,
                   213
```

```
interleukin; IL-17 like protein; rheumatic disease; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease, allergy; graft rejection, bone destruction; drug screening; antiinflammatory; immunosuppressive; antiathmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAEO8676), shown in figure 1A.
                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                  92
                                                                                                                                                                                                                                                                                                              3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                  Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /label= Nle
/note= "Wild-type Leu substituted with Nle"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human interleukin (IL)-17 like protein mutant (Leu47Nle).
                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                               Score 1059; DB 22;
                                                                                                                                                                                                                                                         ó
                                                                                                                                                                                                                         1.9e-107
                                                                                                                                                                                                                                                      1; Mismatches
                                                                                                                                                                                                                               Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
47
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAE08679 standard; Protein; 227 AA.
```

Misc-difference 47

```
If the receptors, using an expression choing strategy. Radiolabelled or affinity/activity-tagged II-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express II-17 like creeptors. A radiolabelled or tagged II-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the II-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the II-17 like protein or thear subset of cells which express the II-17 like and expression library the and chronic inflammation such as rheumatic diseases, graft versus host treating and preventing inflammatory disease, autoimmune disease, allerates, a sthma and organ or graft rejection in a patient and also for inhibiting T cell prollferation and/or activation, in vivo B cell prollferation and/or activation, in vivo B cell prollferation and/or activation, in vivo B cell prollferation mand/or activation, in vivo B cell celated genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein mis either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant [Leutwike].
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                  The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; ssthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123 KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAEO8676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human interleukin (IL)-17 like protein mutant (Leu47Ala).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 1058; DB 22
NO. 2.4e-107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pred. No. 2.46
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAE08683 standard; Protein; 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match 98.6
Best Local Similarity 99.5
Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           213 ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE08683;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          m
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAE08683
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
```

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for land nucleic acids encoding them. IL-17 like protein is useful for treating binding partners, agonists and antagonists which can be used for treating one or more diseases or discorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to dentify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like antagonist are useful for treating and preventing inflammatory disease, autoimmune disease, and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, alleration or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 and the protein mutant (leutofale).
                                                                                                                                                                                                                                                                                                                                                         Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ut is
NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Note: The present sequence is not shown in the specification, but derived from the human IL-17 like protein referred to as SEQ ID NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123 KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 227;
                  /note= "Wild-type Leu substituted with Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.6%; Score 1058; DB 22;
99.5%; Pred. No. 2.4e-107;
tive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 18; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             shown in figure 1A.
                                                                                                                                                                             08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                      07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                    WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     227 AA;
                                                                                                                                                                                                                                        (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                Jing S, Bass MB;
                                                        WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (AAE08676),
                                                                                                16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                        rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local S
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Qγ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
```

ò

Location/Qualifiers

Key

Homo sapiens. Synthetic.

g

```
AAE08690
  SSSSSS
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 á
                                                                                                                                                                                                                                                                                                          P
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to interleukin (LL)-1' like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like preceptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to dentify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease.

IL-17 like protein, appropriate and and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Tyrl4ITrp).
                                                                                                                                                                                                                                                                                                                           Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to interleukin (IL)-17 like polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Wild-type Tyr substituted with Trp"
                                                                                                                                                                                                                                                                                    Human interleukin (IL)-17 like protein mutant (Tyr141Trp).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                       AAE08686 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 20; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2000US-0180864
2000US-0722920
                                                                                                                                                                                                                                     (first entry)
213 ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Misc-difference 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-FEB-2000;
27-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                     15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            rejection
                                                                                                                                                                                      AAE08686;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Jing S,
                                                                                                                 AAE08686
```

```
Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                            PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                           KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                             Gaps
Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                           92
                                                                                                                                                                                                                                     3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                          ö
                                                                                                                                                   Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Wild-type Pro substituted with Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human interleukin (IL)-17 like protein mutant (Pro151Ala).
                                                                                                                                                                                             Indels
                                                                                                                                                   DB 22;
                                                                                                                                                                                             ö
                                                                                                                                                                         Pred. No. 2.4e-107
                                                                                                                                                                                           1; Mismatches
                                                                                                                                                   Score 1058;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 21; Page -; 117pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE08690 standard; Protein; 227
                                          (AAE08676), shown in figure lA.
                                                                                                                                                 98.68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2001-529841/58.
                                                                                                                                                                         Similarity
                                                                                    227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO200159120-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L5-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-AUG-2001.
                                                                                                                                                                                             Matches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rejection
                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAE08690;
                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s,
                                                                                                                                                                           Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jing
                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                        123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   213
```

```
and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like for ceeptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful activation in a partial activation in their surface. IL-17 like protein in an ultiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting real proliferation and/or activation, in vio B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like molecule mutant (ProlShAla).
present invention relates to interleukin (IL)-17 like polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (AAE08676), shown in figure lA.
```

DB 22; 227 AA; Sequence

```
;
0
                                                                                                                      KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                         PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                            0; Gaps
                                                    3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                             33 llpgllfltwlhtclahhdpslrghphshgtphcysaeelplggapphllargakwggal 92
  Length 227;
                            Indels
                            ij
Score 1055; DB 22;
Pred. No. 5.2e-107;
0; Mismatches 1;
Query Match
Best Local Similarity 99.5%;
Matches 194; Conservative (
                                                                                                                                                                                                                                 183 IHVPVGCTCVLPRSV 197
                                                                                                         63
                                                                                                                                   93
                                                                                                                                                             123
                                                                                                                                                                                       g
                                                                             g
                                                                                              ٠Ş
                                                                                                                                 g
                                                                                                                                                            ò
                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                           g
```

AAE08688 standard; Protein; 227 AA. 15-NOV-2001 (first entry) AAE08688; RESULT 2 AAE08688

Human interleukin (IL)-17 like protein mutant (Tyr141Thr).

Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allery; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.

sapiens Synthetic. Homo

Misc-difference 141

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for dentifying partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell like or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like receptors on their surface. IL-17 like protein is useful as and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and cell desers on chromosomes, as hybridisation probes in diagnostic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Tyr141Thr).
                                                                                                                                                                                                                                                                                                                                                                                           Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
/note= "Wild-type Tyr substituted with Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 20; Page -; 117pp; English.
                                                                                                                                    07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                2000US-0180864
2000US-0722920
                                                                                                                                                                                                                                                                                                                                               WPI; 2001-529841/58.
                                                                                                                                                                                                                                                      (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                    Jing S, Bass MB;
                                         WO200159120-A2.
                                                                                                                                                                                08-FEB-2000;
27-NOV-2000;
                                                                                      16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rejection
```

63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122 pvalvssleaashrgrherpsattqcpvlrpeevleadthqrsispwrtrvdtdedrypq 152 3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL Length 227; Indels 98.2%; Score 1054; DB 22; 99.5%; Pred. No. 6.7e-107; ive 0; Mismatches 1; Conservative Similarity Best Local Sim: Matches 194; Query Match 63 q ò QQ ó

(AAE08676), shown in figure 1A.

227 AA;

Sednence

ö

KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182 IHVPVGCTCVLPRSV 197 123 153 183 q à ò

The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the affinity ligand to identify and isolate from an expression library the affinity like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein. treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft /note= "Wild-type Tyr substituted with Ser" Human interleukin (IL)-17 like protein mutant (Tyr141Ser). Location/Qualifiers 141 AAE08689 standard; Protein; 227 AA. Claim 20; Page -; 117pp; English. 07-FEB-2001; 2001WO-US03916. 08-FEB-2000; 2000US-0180864, 27-NOV-2000; 2000US-0722920. (first entry) 213 ihvpvgctcvlprsv 227 WPI; 2001-529841/58. (AMGE-) AMGEN INC. Bass MB; Misc-difference WO200159120-A2 sapiens 15-NOV-2001 16-AUG-2001 Synthetic rejection AAE08689; Jing S, Homo q

```
Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            or graft
                                                                                                                                                                                           PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                     Gaps
derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAE08676), shown in figure 1A.
                                                                                                                             3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                           Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or g
                                                                                                    ;
0
                                                                             Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Wild-type Pro substituted with Gly"
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human interleukin (IL)-17 like protein mutant (Pro151Gly).
                                                                                                     Indels
                                                                           4; DB 22;
6.7e-107;
                                                                                        Pred. No. 6.7e; Mismatches
                                                                            Score 1054;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                         AAE08691 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 21; Page -; 117pp; English.
                                                                                                    ó;
                                                                           98.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                        15-NOV-2001 (first entry)
                                                                                                  Matches 194; Conservative
                                                                                                                                                                                                                                                                                183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                               213 ihvpvgctcvlprsv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-529841/58
                                                                                        Similarity
                                       227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rejection
                                                                                                                                                                                                                                                                                                                                                                                               AAE08691;
                                        Sequence
                                                                             Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jing S,
                                                                                         Best Local
                                                                                                                                                                                                                                                                                                                                                25
                                                                                                                                                                                                                                123
                                                                                                                                                                            63
                                                                                                                                                                                                     63
                                                                                                                                                                                                                                                         153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                            AAE08691
  SS \times S
                                                                                                                             ò
                                                                                                                                                   염
                                                                                                                                                                            δ
                                                                                                                                                                                                     qq
                                                                                                                                                                                                                              δ
                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                δy
                                                                                                                                                                                                                                                                                                        g
```

The present invention relates to interleukin (IL)-17 like polypeptides

assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Tyr141Ser)

Note: The present sequence is not shown in the specification, but is

us-09-854-208-3.rag

```
dentifying binding partners, and an anagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like cell type or cell line or tissue that express IL-17 like fortian is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like receptors on their surface.

IL-17 like protein, agonist and antagonist are useful for treating and preventing inflammation such as rheumatic disease, graft versus host disease and multiple solerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and for blocking the effects of IL-17 in inducing bone destruction, and for blocking the effects of IL-17 in inducing bone destruction, in the sense in diagnostic assays. Non human animals in which the promoter for one or more of IL-17 like protein mutant (Prol3612).

Ike protein mutant (Prol3612) in which the promoter for one or more of IL-17 like protein mutant (Prol3612).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  123 KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
nucleic acids encoding them. IL-17 like protein is useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Wild-type Cys substituted with Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human interleukin (IL)-17 like protein mutant (Cys159Ala).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1054; DB 22;
Pred. No. 6.7e-107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAE08693 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAE08693;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE08693
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for dentifying partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/acitivity-tagged IL-17 proteins are useful in binding assays to dentify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an adminity lite protein, agonist and antagonist are useful for treating and preventing inflammatory disease, autoimmune disease, and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, alleraties, asthma and organ or graft rejection in a patient and also continhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein mutant (CyslSAJa).
                                                                                                                                                                                                                                                                                                          Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 1054; DB 22;
Pred. No. 6.7e-107;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                          Claim 22; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.2%;
99.5%;
                                                                                           07-FEB-2001; 2001WO-US03916.
                                                                                                                                    2000US-0180864
                                                                                                                                                         2000US-0722920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 99.5
Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-529841/58.
                                                                                                                                                                                                                                  Bass MB;
                WO200159120-A2.
                                                                                                                                                         27-NOV-2000;
                                                                                                                                    08-FEB-2000;
                                                       16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                  Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      123
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 δ
```

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying blinding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression choning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like ceeptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, alternated or libration or immunoglobulin secretion in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation and/or activation, in vivo B cell continuing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and continuing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and continuing the procession in diagnostic.
                                                                                                                                                                                                      Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "Wild-type Cys substituted with Ala"
                                                                                                                                                              Human interleukin (IL)-17 like protein mutant (Cys161Ala).
                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
                                         AAE08695 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 23; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  07-FEB-2001; 2001WO-US03916.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0180864
2000US-0722920
                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-529841/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-FEB-2000;
                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27-NOV-2000;
                                                                                                                       15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rejection
                                                                                AAE08695;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jing S,
27
                   AAE08695
RESULT
```

candidate screening. The present sequence is human IL-17 like protein mutant (Cys161Ala).

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to interleukin (\rm IL)-17 like polypeptides and nucleic acids encoding them. \rm IL-17 like protein is useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123 KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                             PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                      92
                                                                                                                                                                                                                                                                 62
                                                                                                                                                                                                                                                           .;
0
                                                                                                                                                Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Wild-type Cys substituted with Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human interleukin (IL)-17 like protein mutant (Cys164Ala).
                                                                                                                                                                                                       Indels
                                                                                                                                             Score 1054; DB 22;
Pred. No. 6.7e-107;
                                                                                                                                                                           Pred. No. 6.76
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE08697 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 24; Page -; 117pp; English.
(AAE08676), shown in figure lA.
                                                                                                                                             98.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2000US-0722920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2000US-0180864
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-NOV-2001 (first entry)
                                                                                                                                                                           Similarity 99.5
4; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2001-529841/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Misc-difference 164
                                                          227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27 - NOV - 2000;
                                                                                                                                                Query Match
Best Local Simi
Matches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE08697;
                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28
                                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                                                          93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 THE STATE OF THE S
SXC
                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                      pp
                                                                                                                                                                                                                                                                                                                                                                                   ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEO ID NO:2
```

us-09-854-208-3.rag

WO200159120-A2. 16-AUG-2001

```
It we receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged II-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express II-17 like creceptors. A radiolabelled or tagged II-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of calls which express the II-17 like protein, agonist and antagonist are useful for treating and thronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. II-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell prolliferation and/or activation, in vivo B cell prolliferation and/or activation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Cysl64Ala).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; sasthma, autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
identifying binding partners, agonists and antagonists which can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAEO8676), shown in figure 1A.
                       treating one or more diseases or disorders and for cloning IL-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                .
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 22; Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human interleukin (IL)-17 like protein mutant (Cys193Ala).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1054; DB 22;
Pred. No. 6.7e-107;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE08699 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 99.5
Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  213 ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAE08699;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying partners, agonists and antagonists which can be used contracted binding partners, agonists and antagonists which can be used in treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as a finity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating and thronic inflammation such as rheumatic diseases, graft versus host disease and multiple solerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for IL-17 in inducing bone destruction. IL-17 like molecule is useful in proliferation and for and/or activation, in vivo B cell proliferation and/or activation, in vivo B cell proliferation and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like and protein an expense or inactivated or more of more of IL-17 like and and an animals in which the promoter for one or more of IL-17 like and and an animals and whome therape and inactivated are useful for drug
                                                                                                                                                                                                                                                                                                                                     Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFFF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  candidate screening. The present sequence is human IL-17 like protein mutant (Cys193Ala).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98.2%; Score 1054; DB 22;
99.5%; Pred. No. 6.7e-107;
ive 0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 25; Page -; 117pp; English.
                                                                                    07-FEB-2001; 2001WO-US03916
                                                                                                                                08-FEB-2000; 2000US-0180864
27-NOV-2000; 2000US-0722920
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Best Local Similarity 99.5
Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                         WPI; 2001-529841/58
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227 AA;
                                                                                                                                                                                                    (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                 Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                         rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                               Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       153
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                213
á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δ
```

ö

/note= "Wild-type Cys substituted with Ala"

```
183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jing
                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                             63
                                                                                                                                                                                                                                                                                                                     123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAE08703
X S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                               q
                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                           qq
                                                                                                                                                                                                                                                                                                                                                                                                     ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ite receptors, using an expression closing strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify actil type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like receptors on their surface. IL-17 like protein, agonist and antagonist are useful for treating and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease.

C treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation and/or activation, in vivo B cell confident on immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and contained the contained genes on chromosomes, as hybridisation probes in diagnostic and appropriate the contained and anticontain and anticontain and also be and anticontain and also be and anticontain and also be and anticontain and a
                                                                                                                                                                                                              Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein mutant (Cys219Ala).
Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             assays. Non-human animals in which the promoter for one or more of 1
like protein is either activated or inactivated are useful for drug
candidate screening. The present sequence is human IL-17 like
                                                                                                                                                                                                                                                                                                                                                                                                                                         /note= "Wild-type Cys substituted with Ala"
                                                                                                                                                                          Human interleukin (IL)-17 like protein mutant (Cys219Ala).
                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                    AAE08701 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 26; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-FEB-2000; 2000US-0180864 27-NOV-2000; 2000US-0722920
                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Jing S, Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                      Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200159120-A2
                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                    15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                               Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     rejection
                                                                                            AAE08701;
                30
                                   AAE08701
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; sashma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                            PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                      pvalvssleaashrgrherpsattqcpvlrpeevleadthqrsispwryrvdtdedrypq 152
                                                                                                                       Gaps
                                                                                                                                                                         LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                       ;
0
                                                                          Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /note= "Wild-type Cys substituted with Ala"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human interleukin (IL)-17 like protein mutant (Cys221Ala).
                                                                                                                       Indels
                                                                       Score 1054; DB 22
Pred. No. 6.7e-107
; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 27; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAE08703 standard; Protein; 227
                                                                                                                       ;
0
                                                                       98.2%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-529841/58.
                                                                                               Best Local Similarity
Matches 194; Conserv
227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200159120-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bass
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAE08703;
  Sequence
                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31
```

```
like receptors, using an expression cloning strategy. RadioLabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like receptors on their surface. IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting Teell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in sease, assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Cys221Ala).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
   for treating one or more diseases or disorders and for cloning IL-17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
```

```
;
                                                                                                                                                                           PVALVSSLEAASHRGRHERPSATTQCPVLRPEBVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                      pvalvssleaashrgrherpsattqcpvlrpeevleadthqrsispwryrvdtdedrypq 152
                                                                                                                                                              KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                           Gaps
                                                                  3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                           .
.
Score 1054; DB 22; Length 227; Pred. No. 6.7e-107;
                           Indels
            Pred. No. 6.7e
0; Mismatches
98.2%;
99.5%;
                        194; Conservative
                                                                                                                                                                                                                                     1111111 | 111111
213 ihvpvgctavlprsv 227
                                                                                                                                                                                                                     183 IHVPVGCTCVLPRSV 197
       Best Local Similarity
Matches 194; Conserv
Query Match
                                                                                                          63
                                                                                                                                   93
                                                                                                                                                              123
                                                                     . q
                                                                                                          ò
                                                                                                                                   g
                                                                                                                                                              ò
                                                                                                                                                                                        g
                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                               g
```

AAE08692 standard; Protein; 227 AA. 15-NOV-2001 (first entry) AAE08692; AAE08692

Human interleukin (IL)-17 like protein mutant (Cys159Ser).

Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antlinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.

Location/Qualifiers Homo sapiens. Synthetic.

/note= "Wild-type Cys substituted with Ser" Misc-difference 159

WO200159120-A2

```
The present invention regards to interpretaring the protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like ceceptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating and chronic inflammation such as rheumatic disease, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, altering and preventing inflammatory disease, autoimmune disease, altering and preventing inflammatory disease, and organ or graft rejection in a patient and also for inhibiting T cell proliferation or graft rejection, in vivo B cell conferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein mutant (Cysl59cer).
                                                                                                                                                                                                                                                                                                                                Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to interleukin (IL)-17 like polypeptides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 22; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (AAE08676), shown in figure 1A.
                                                                   07-FEB-2001; 2001WO-US03916
                                                                                                               2000US-0180864.
2000US-0722920.
                                                                                                                                                                                                                                                                                      WPI; 2001-529841/58.
                                                                                                                                                                                          (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         227 AA;
                                                                                                               08-FEB-2000;
27-NOV-2000;
                   16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                          rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                      Jing S,
```

ö Gaps 3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62 ö Length 227; Indels DB 22; 98.1%; Score 1053; DB 22; 99.5%; Pred. No. 8.6e-107; ive 0; Mismatches 1; Best_Local Similarity 99.5 Matches 194; Conservative Query Match ò qq

PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122 63

pvalvssleaashrgrherpsattgcpvlrpeevleadthgrsispwryrvdtdedrypg 152

93

QQ

ŏ

KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182 123 qq δλ

IHVPVGCTCVLPRSV 197 183

Mon

227 AA;

Sequence

So

```
dentifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and considered genes on chromosomes, as hybridisation probes in diagnostic in the considered genes on chromosomes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is human IL-17 like protein mutant (Cys161Ser).
                                                                                                                                                                                                               Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy;
                                                                                                                                                                                                                                 multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiashmatic; neuroprotective; antithehmatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for
                                                                                                                                                                                                                                                                                                                                                                                                                                161
/note= "Wild-type Cys substituted with Ser"
                                                                                                                                                                    Human interleukin (IL)-17 like protein mutant (Cys161Ser).
                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                        AAE08694 standard; Protein; 227 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 23; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   07-FEB-2001; 2001WO-US03916
                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO200159120-A2.
                                                                                                                                                                                                                                                                                                                                             sapiens
                                                                                                                           15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                      Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rejection
                                                                                   AAE08694;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Jing S,
33
                                                                                                                                                                                                                                                                                                                                             Homo
                    AAE08694
RESULT
```

Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2

derived from the human IL-17 1:19 (AAE08676), shown in figure 1A.

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 \,
                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antitahematic; antiallergic; mutant; mutelin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                        KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                               Gaps
                                                        3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                     ö
Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Wild-type Cys substituted with Ser"
                                                                                                                                                                                                                                                                                                                                                                                                                   Human interleukin (IL)-17 like protein mutant (Cys164Ser).
                             Indels
 Score 1053; DB 22;
Pred. No. 8.6e-107;
); Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                AAE08696 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 24; Page -; 117pp; English.
                            ·
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       08-FEB-2000; 2000US-0180864.
27-NOV-2000; 2000US-0722920.
 98.1%;
ilarity 99.5%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-FEB-2001; 2001WO-US03916
                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                            213 ihvpvgctcvlprsv 227
                                                                                                                                                                                                                                IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-529841/58.
                 Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sapiens.
                                                                                                                                                                                                                                                                                                                                                                                       15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-AUG-2001
                            Matches 194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                rejection
                                                                                                                                                                                                                                                                                                                                                            AAE08696;
  Query Match
Best Local (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Jing S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ношо
                                                                                                                                                                        123
                                                                                                                                                                                                                                183
                                                                                                                                                                                                                                                                                                                    AAE08696
                                                                                                                                                                                                                                                                                                      RESULT
                                                                                                                                                                                                                                                                                                                                                            ŏ
                                                                                                                                                                                                                                                          g
                                                                                                                                                                        ŏ
                                                                                                                                                                                                  g
                                                          ŏ
                                                                                   d
                                                                                                                  à
                                                                                                                                           g
```

2000US-0180864. 2000US-0722920.

08-FEB-2000; 27-NOV-2000;

(AMGE-) AMGEN INC.

ŝ Jing WPI; 2001-529841/58.

07-FEB-2001; 2001WO-US03916

16-AUG-2001.

```
affinity/activity-tagged IL-17 proteins are useful in binding assays to dentify actility or cill line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein. Subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating acute on chronic inflammation such as rheumatic diseases, graft versus host treating and preventing inflammatory disease, autoimnue disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and for a patient and also for inhibiting T cell proliferation and for a patient and also for inhibiting or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non human animals in which the promoter for one or more of IL-17 like protein mutant (Cyslédser).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma: autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                     Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /note= "Wild-type Cys substituted with Ser"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human interleukin (IL)-17 like protein mutant (Cys193Ser).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 1053; DB 22;
Pred. No. 8.6e-107;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAE08698 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                         (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               98.1%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       213 ihvpvgctcvlprsv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                              227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE08698;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                35
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ношо
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

```
The present invention relates to interleukin (IL)-17 like polypeptides
and nucleic acids encoding them. IL-17 like protein is useful for
identifying partners, agonists and antagonists which can be used
for treating one or more diseases or disorders and for cloning IL-17
Like receptors, using an expression cloning strategy. Radiolabelled or
affinity/activity-taged IL-17 proteins are useful in binding assays to
identify a cell type or cell line or tissue that express IL-17 like
receptors. A radiolabelled or tagged IL-17 like protein is useful as an
affinity liquad to identify and isolate from an expression library the
subset of cells which express the IL-17 like protein is useful as an
affinity like protein, agonist and antagonist are useful for treating acute
and chronic inflammation such as rheumatic diseases, graft versus host
disease and multiple sclerosis. IL-17 like antagonists are useful for
treating and preventing inflammatory disease, autoimmune disease.

allergies, asthma and organ or graft rejection in a patient and also
for inhibiting T cell proliferation and/or activation, in vivo B cell
proliferation or immunoglobulin secretion, and for blocking the effects
of IL-17 in inducing bone destruction. IL-17 like molecule is useful in
canned genes on chromosomes, as hybridisation probes in diagnostic
assays. Non-human animals in which the promoter for one or more of IL-17
canned and processed or incommon animals in which the promoter for one or more of IL-17
canned and the protein or man animals in which the promoter for one or more of IL-17
canned and the protein or thomosomes and the IL-17 like sources.

The protein is either activated or inactivated are useful for drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                            Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                212
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123 KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2 (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      candidate screening. The present sequence is human IL-17 like protein mutant (Cys193Ser).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 22;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98.1%; Score 1053; DB 22
99.5%; Pred. No. 8.6e-107
ive 0; Mismatches 1.
                                                                                                                                                                                                                                                                                                                                                                                                                Claim 25; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           213
qq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Qγ
```

AAE08700

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like receptors on their surface. IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammantlon such as rheumatic diseases, graft versus host treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also proliferation or immunoglobulin secretion, and for blocking the effects of the lates and form and inducing bone destruction. IL-17 like and surface in the proliferation and/or activation, in vivo B cell proliferation and form and form and inducing bone destruction. IL-17 like and surface and horse and the properties and contain the properties and contain the properties and properties and properties are useful in the properties.
                                                                                                                                                                             Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; antiinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        candidate screening. The present sequence is human IL-17 like protein mutant (Cys219Ser).
                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Wild-type Cys substituted with Ser"
                                                                                                                                     Human interleukin (IL)-17 like protein mutant (Cys219Ser).
                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
AAE08700 standard; Protein; 227 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 26; Page -; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-FEB-2001; 2001WO-US03916.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2000US-0180864
2000US-0722920
                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2001-529841/58.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (AMGE-) AMGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                  Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200159120-A2.
                                                                                                                                                                                                                                                                                                                            Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-FEB-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-NOV-2000;
                                                                                        15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-AUG-2001
                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          rejection
                                             AAE08700;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Jing S,
```

(AAE08676), shown in figure 1A.

227 AA;

Sequence

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or
                                                                                                                                                                                                                                                                                                                                                                                                                                               Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; artiinflammatcry; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic; mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                63 PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFAFHTEF 182
                                                                                                                                                                                       Gaps
                                                       LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                       ó
Length 227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note= "Wild-type Cys substituted with Ser"
                                                                                                                                                                                                                                                                                                                                                                                                                    Human interleukin (IL)-17 like protein mutant (Cys221Ser).
                             Indels
 Score 1053; DB 22;
Pred. No. 8.6e-107;
                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                  AAE08702 standard; Protein; 227 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 27; Page -; 117pp; English.
                            ;
 98.1%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             07-FEB-2001; 2001WO-US03916.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2000US-0180864
2000US-0722920
                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                             Conservative
                                                                                                                                                                                                                                 183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                WPI; 2001-529841/58.
              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bass MB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AMGE-) AMGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200159120-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08-FEB-2000;
27-NOV-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                           15-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-AUG-2001
                             194;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rejection
 Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                             AAE08702;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jing S,
                                                       m
                                                                                                                                            93
                                                                                                                                                                        123
                                                                                                                                                                                                                                                             213
                            Matches
                                                                                   QQ
                                                                                                                                                                                                  qq
                                                                                                                                                                                                                                                                                                                                                             δy
                                                                                                                                            g
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                            g
                                                                                                                                                                        ŏ
```

07-FEB-2001; 2001WO-US03916.

WO200159120-A2.

16-AUG-2001

20000S-0722920 2000US-0180864

08-FEB-2000; 27-NOV-2000;

(AMGE-) AMGEN INC. Jing S, Bass MB; 2001-529841/58

N-PSDB; AAD15291

```
affinity/activity-tagged IL-17 proteins are useful in binding assays to identify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an effinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein, agonist and antagonist are useful for treating acute and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmune disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 sike protein musent (Cyszlaser).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; interleukin; IL-17 like protein; rheumatic disease; gene therapy; multiple sclerosis; graft versus host disease; inflammatory disease; asthma; autoimmune disease; allergy; graft rejection; bone destruction; drug screening; anttinflammatory; immunosuppressive; antiasthmatic; neuroprotective; antirheumatic; antiallergic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note- "These amino acid residues are absent in the sequence shown in sequence listing of the specification"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYPQ 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123 KLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLPTPGAFFHTEF 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Note: The present sequence is not shown in the specification, but is derived from the human IL-17 like protein referred to as SEQ ID NO:2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHLLARGAKWGQAL 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;
0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 1053; DB 22; Length 227;
Pred. No. 8.6e-107;
); Mismatches 1; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /label- Mature_human_IL-17_like protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human mature interleukin (IL)-17 like protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      'label- Signal_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE08677 standard; Protein; 223 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .;
0
                                                                                                                                                                                                                                                                                                                                                                                                         (AAE08676), shown in figure 1A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98.1%;
99.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-NOV-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            183 IHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             213 ihvpvgctsvlprsv 227
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                              227 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAE08677;
                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAE08677
       q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ζò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Оþ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

```
The present invention relates to interleukin (IL)-17 like polypeptides and nucleic acids encoding them. IL-17 like protein is useful for identifying binding partners, agonists and antagonists which can be used for treating one or more diseases or disorders and for cloning IL-17 like receptors, using an expression cloning strategy. Radiolabelled or affinity/activity-tagged IL-17 proteins are useful in binding assays to dentify a cell type or cell line or tissue that express IL-17 like receptors. A radiolabelled or tagged IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is useful as an affinity ligand to identify and isolate from an expression library the subset of cells which express the IL-17 like protein is surface. IL-17 like protein, agonist and antagonist are useful for treating and chronic inflammation such as rheumatic diseases, graft versus host disease and multiple sclerosis. IL-17 like antagonists are useful for treating and preventing inflammatory disease, autoimmume disease, allergies, asthma and organ or graft rejection in a patient and also for inhibiting T cell proliferation and/or activation, in vivo B cell proliferation or immunoglobulin secretion, and for blocking the effects of IL-17 in inducing bone destruction. IL-17 like molecule is useful in gene therapy and for mapping the location of the IL-17 like gene and related genes on chromosomes, as hybridisation probes in diagnostic assays. Non-human animals in which the promoter for one or more of IL-17 like protein is either activated or inactivated are useful for drug candidate screening. The present sequence is mature human IL-17 like
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 5
                                                                                                                                                                                                                                                                                                                                                                  Novel interleukin-17 like polypeptides and nucleic acid molecules encoding them useful for diagnosis, prevention and treatment of inflammatory, autoimmune disease, allergies, asthma and organ or graft
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTDEDRYP 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 LLPGLLFLTWLHTCLAHHDPSLRGHPHSHGTPHCYS-AEELPLGQAPPHLLARGAKWGQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                29 llpgllfltwlhtclahhdpslrghphshgtp-cyshaeelplgqapphllargakwgqa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    96.4%; Score 1034; DB 22; Length 223; 99.0%; Pred. No. 1e-104; 1.ve 0; Mismatches 0; Indels 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 15; Fig 2; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local Similarity 99.0
Matches 194; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               filhopyqctcylprsv 223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      223 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                 rejection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 802
g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      δŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

87 AA;

```
Sequence
                                                                                                                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                      Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Domain
                                                                                                                                                                                          40
                                                                                                                                                                                                      AAG66119
g
                                                                                                                                                                                                                                          ò
                                                                                                        g
                                                                                                                                ŏ
                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The present sequence represents a partial human interleukin-21 (IL-21) protein. The specification also describes IL-22 polynucleotides and polypeptides. The IL-21 polynucleotide was isolated from a cDNA library of apoptotic T-cells. IL-21 and IL-22 may be useful in treating deficiencies or disorders of the immune system, by activating or detecting continuiting the proliferation, differentiation, or mobilization chemotaxis) of immune cells, treating or detecting deficiencies or disorders of haematopoietic cells, to modulate haemostatic or thrombolytic activity, in treating or detecting autoimmune disorders, treating asthma (particularly allergic asthma) or other respiratory problems, to treat and/or prevent organ rejection or graft-versus-host disease (GVHD), to modulate inflammation, to treat or detect byperproliferative disorders, to treat or detect infectious agents, to differentiate, pooliferate and attract cells, leading to the regeneration of tissues, IL-21 and IL-22 may also increase or decrease the differentiation or proliferation of embryonic stem cells and hematopoietic lineage, may be used to modulate mammalian
                                                                                                                  Human; interleukin-21; IL-21; IL-22; immune system disorder; immune cell chemotaxis; haematopoietic cell disorder; haemostatic activity; thrombolytic activity; autoimmune disorder; altergic asthma; respiratory problem; organ rejection; graft-versus-host disease; GVHD; inflammation;
                                                                                                                                                                            hyperproliferative disorder; tissue regeneration; embryonic stem cell differentiation; haematopoietic lineage.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e.g. immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel polynucleotides used to develop products for treating disorders, blood disorders, autoimmune disorders, allergies, Inflammation, hyperproliferative disorders or infections
                                                                                             Partial amino acid sequence of human interleukin-21.
                                                                                                                                                                                                                                                                                                                            "conserved domain III"
                                                                                                                                                                                                                                                                                                                           /note= "conserved domain III'
75..82
/note= "conserved domain IV"
                                                                                                                                                                                                                                                                                                    "conserved domain II"
                                                                                                                                                                                                                                                                            "conserved domain I"
                                                                                                                                                                                                                                                      Location/Qualifiers
                      AAY53890 standard; Protein; 87 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 25; Fig 1; 170pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                               98US-0097340.
98US-0099805.
99US-0131965.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HUMA-) HUMAN GENOME SCI INC.
                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US11644.
                                                                     (first entry)
                                                                                                                                                                                                                                                                              /note=
                                                                                                                                                                                                                                                                                                      /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-072622/06.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ebner R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            N-PSDB; AAZ36834
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   characteristics.
                                                                                                                                                                                                                                                                                                                                                                                                                                               29-MAY-1998;
10-SEP-1998;
30-APR-1999;
                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                           W09961617-A1
                                                                     13-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                          27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                  02-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ruben SM,
                                             AAY53890;
                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                         Domain
                                                                                                                                                                                                                                                                                                                 Domain
                                                                                                                                                                                                                                                                                                                                         Domain
           AAY53890
RESULT
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to novel human proteins designated interleukin [LI-21 and IL-22. The IL-21 and IL-22 polynucleotides can be used in linkage analysis as a marker for those specific chromosome, in chromosome mapping, to control gene expression through triple helix formation or antisense DNA or RNA, in gene therapy, in identifying individuals from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Interleukin, IL-21, IL-22; immunosuppressive; cytostatic; thrombolytic; antiinflammatory; antibacterial; gene therapy; human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      polypeptides,
                                                                                   112 RVDTDEDRYPQKLAFAECLCRGCIDARTGRETAALNSVRLLQSLLVLRRRPCSRDGSGLP 171
                                               Gaps
                                                                                                          New interleukin-21 and interleukin-22 polynucleotides and polyper useful for treating, preventing or diagnosing e.g. disorders of hematopoietic cells, autoimmune disorders, or hyperproliferative
                                             .;
0
  Length 87;
                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human interleukin (IL)-21 partial amino acid sequence.
Score 459; DB 21;
Pred. No. 2.1e-42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              domain III"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "conserved domain IV"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "conserved domain II"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note= "conserved domain I"
                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
                                                                                                                                                                          172 TPGAFAFHTEFIHVPVGCTCVLPRSV 197
                                                                                                                                                                                                                87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "conserved
                                                                                                                                                                                                                                                                                                                               AA.
                                                                                                                                                                                                62 tpgafafhtefihvpvgctcvlprsv
                                        ;
                                                                                                                                                                                                                                                                                                                             AAG66119 standard; Protein; 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 25; Fig 1; 87pp; English.
42.8%; S
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-087340P.
99US-131965P.
99US-169837P.
99US-0320713.
99WO-US11644.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-DEC-2000; 2000US-0731816
                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46..52
/note=
75..82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19..24
/note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-638470/73.
Query Match
Best Local Similarity
Matches 86; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ebner R, Ruben SM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EBNE/) EBNER R.
(RUBE/) RUBEN S M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB; AAI67876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                US2001023070-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             29-MAY-1998;
30-APR-1999;
09-DEC-1999;
27-MAY-1999;
27-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                 13-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-SEP-2001
                                                                                                                                                                                                                                                                                                                                                                      AAG66119;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diseases
```

. : 4

Ą:

```
minute biological samples, as an alternative to restriction fragment blongth polymorphism (RFLP) analysis, as polymorphic markers for forensic purposes, as molecular weight markers, or as diagnostic probes. IL-21 and IL-22 polypeptides can be used to treat, prevent or diagnose diseases of the immune system by activating or inhibiting the proliferation, differentiation or mobilization of immune cells, disorders of hematopoietic cells (e.g. ataxia, human immunodeficiency virus (HIV) infection, anemia, thrombocytopenia), autoimmune disorders (e.g. Grave's disease, systemic lupus erythematosus, ophthalmia), graft versus host disease, inflammation, hyperproliferative disorders, or infectious can be used to treat, inhibit or prevent diseases or conditions associated with aberrant expression and/or activity of IL-21 or IL-22.
                                                                                                                                                                                                                                                                                                                                                                           IL-21.
```

87 AA; Sequence

; 0; Gaps Query Match 42.8%; Score 459; DB 22; Length 87; Best Local Similarity 100.0%; Pred. No. 2.1e-42; Matches 86; Conservative 0; Mismatches 0; Indels ò g

QQ ò

Search completed: September 16, 2002, 15:45:32 Job time: 236 sec